

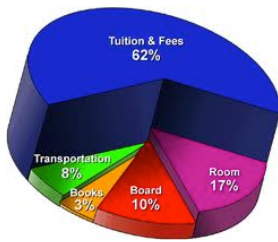
## Chapter 8: Mean Absolute Deviation

### Additional Topics

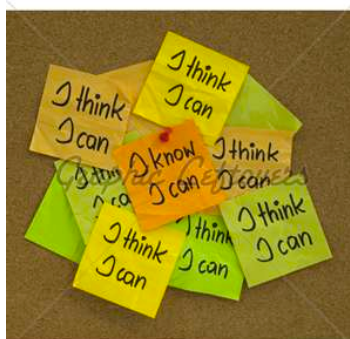
Unit Question: How do we understand the world around us?

Learner Profile: Open-Minded

Area of Interaction: Community and Service



**I Can Statement:**  
I can find the Mean  
Absolute Deviation from  
a set of data.



# Mean Absolute Deviation

One way to find how consistent a set of data is to find the Mean Absolute Deviation.

Mean absolute deviation describes the average distance from the mean for the numbers in the data set. ♦

To calculate the Mean Absolute Deviation complete the following steps:

**Step 1:** Find the Mean of the data:

$$\frac{(87+94+72+65+97+77)}{6} = 82$$

$$6 \overline{) 492} \begin{matrix} 82 \end{matrix}$$

**Step 2:** Subtract the Mean from each Data point. (Hint all values will be positive so remove all the signs from the answer)

$87 - 82 =$	5
$94 - 82 =$	12
$72 - 82 =$	10
$65 - 82 =$	17
$97 - 82 =$	15
$77 - 82 =$	5

**Step 3:** Find the mean of the values you got when you subtracted

$$\text{Total} = 64$$

$$\text{Mean} = 64/6 = 10.67$$

Mean Absolute Deviation

You Try, then Compare with your partner

5,9,4,10,6,8

Step 1  $42 \div 6 = 7$  *mean*

Step 2

$$5-7=-2$$

$$9-7=2$$

$$4-7=-3$$

$$10-7=3$$

$$6-7=-1$$

$$8-7=1$$

Step 3

2,2,3,3,1,1

$$12 \div 6 = 2$$

Standard Mean

Deviation is 2



## Homework

Complete Mean Absolute Deviation Worksheet

Review for the End of Level Test on Tuesday